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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PIZIALI, ANDREW T

ART UNIT

PAPER NUMBER

1775

DATE MAILED: 09/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/007,021

Applicant(s)

WELTY ET AL.

Examiner

Andrew T Piziali

Art Unit

1775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 22-31 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6,245,435 to O'Brien et al. (hereinafter referred to as O'Brien).

Regarding claims 22-31, O'Brien discloses a faucet having a coating on at least a portion of a surface of the faucet, the faucet comprising a faucet substrate and a coating including a strike layer on the faucet substrate consisting essentially of zirconium, titanium or zirconium-titanium alloy on the surface, and a layer on the strike layer consisting essentially of zirconium nitride, titanium nitride, or zirconium-titanium alloy nitride on the strike layer (see entire document including column 1, lines 5-8, column 5, lines 33-50, and column 8, lines 20-36).

Regarding claims 28-29, O'Brien discloses that the substrate may be any of a variety of metals including brass or zinc (column 7, lines 1-20).

Regarding claim 30, O'Brien discloses that the strike layer may have a thickness between 0.25 millionths of an inch and 50 millionths of an inch (column 8, lines 20-25).

Regarding claim 31, O'Brien discloses that the layer may have a thickness between 0.1 millionths of an inch and 30 millionths of an inch (column 8, lines 26-36).

Art Unit: 1775

3. Claims 32-33 and 40-41 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 5,989,652 to Ameen et al. (hereinafter referred to as Ameen).

Regarding claims 32-33 and 40-41, Ameen discloses an article having a coating on at least a portion of a surface of the article, the article comprising a substrate consisting essentially of zinc or aluminum and a coating on the substrate, the coating including a strike layer directly contacting the surface of the substrate and consisting essentially of zirconium, titanium or zirconium-titanium alloy and having a thickness less than 15 millionths of an inch, and a layer directly contacting the strike layer and consisting essentially of zirconium compound, titanium compound, or zirconium-titanium alloy compound (see entire document including the paragraph bridging columns 1 and 2, column 3, lines 45-47, column 4, lines 9-14).

Regarding claim 33, Ameen discloses that the compounds may be a nitride (paragraph bridging columns 1 and 2).

Regarding claim 40, Ameen discloses that the layer may have a thickness between 0.1 millionths of an inch and 30 millionths of an inch (column 5, lines 39-42).

Regarding claim 41, Ameen discloses that the strike layer may have a thickness greater than 0.25 millionths of an inch (column 4, lines 8-14).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1775

5. Claims 28-29 and 32-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Brien as applied to claims 22-31 above.

Regarding claims 28-29 and 32-41, O'Brien discloses that the substrate may be any of a variety of metals including brass, zinc, and magnesium (column 7, lines 1-20). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the faucet substrate from any suitable metal material, such as aluminum, because aluminum shares material characteristics substantially identical to zinc and magnesium and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use.

Regarding claims 32-41, O'Brien discloses that a non-essential corrosion protection layer (12) may be between the strike layer (16) and the faucet substrate (10) (column 3, lines 8-33 and column 7, lines 21-36). It would have been obvious to one having ordinary skill in the art at the time the invention was made to omit the corrosion protection layer, because omitting the corrosion protection layer would reduce costs and some consumers prefer lower cost faucets to faucets with higher corrosion protection. O'Brien discloses that the insulating layer (14) may be located on the exterior of the article rather than between the strike layer and the substrate (column 8, lines 1-19). O'Brien also discloses that the strike layer may have a thickness greater than 0.25 millionths of an inch and less than 15 millionths of an inch (column 8, lines 20-25).

Regarding claim 39, O'Brien discloses that the article may be door hardware (column 1, lines 51-55). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the substrate a doorknob, because a doorknob is a piece of door hardware that requires corrosion resistance and a desired color.

Art Unit: 1775

Regarding claim 40, O'Brien discloses that the layer may have a thickness between 0.1 millionths of an inch and 30 millionths of an inch (column 8, lines 26-36).

6. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Brien as applied to claims 28-29 and 32-41 above, and further in view of USPN 5,759,677 to Fink.

Fink discloses that faucet coatings may be used for doorknobs (column 1, lines 7-17). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the substrate a doorknob, as disclosed by Fink, because a doorknob is a piece of door hardware that requires corrosion resistance and a desired color.

7. Claims 22-23, 28-33, 38-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corrosion of Hard Coatings to Jehn et al. (hereinafter referred to as Jehn).

Regarding claims 22-23, 28-33, 38-41, Jehn discloses a bathroom fixture or door hardware article having a coating on at least a portion of a surface of the article, the article comprising a substrate and a coating including a strike layer on the substrate consisting essentially of titanium on the surface, and a layer on the strike layer consisting essentially of titanium nitride (see entire document). Jehn does not specifically mention a faucet or a doorknob, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the article a faucet or a doorknob, because a faucet is a bathroom fixture that requires a high resistance to corrosion and a doorknob is a piece of door hardware that requires a high resistance to corrosion.

Regarding claims 28-29, 32 and 40-41, Jehn discloses that the substrate may be copper, steel, brass, zinc, aluminum or nickel (see entire document).

Art Unit: 1775

Regarding claims 30-32 and 40-41, Jehn does not mention the specific applicable thickness ranges for the layers, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the thickness of the layers, because it is understood by one of ordinary skill in the art that the layer thicknesses determine the level of corrosion protection and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Response to Arguments

8. Applicant's arguments have been considered but are moot in view of the new grounds of rejection.

Conclusion

9. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 1775

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T Piziali whose telephone number is (703) 306-0145. The examiner can normally be reached on Monday-Friday (7:00-3:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (703) 308-3822. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-3822.



ANDREW T. PIZIALI
PATENT EXAMINER

atp

August 28, 2003



DEBORAH JONES
SUPERVISORY PATENT EXAMINER